

REMARKS

Favorable reconsideration is respectfully requested in view of the foregoing amendments and the following remarks.

Applicants are submitting the present Amendment without prejudice to the subsequent prosecution of claims to some or all of the subject matter which might be lost by virtue of this paper, and explicitly reserve the right to pursue some or all of such subject matter, in Divisional or Continuation Applications.

**I. CLAIM STATUS AND AMENDMENTS**

Claims 20-39 were pending in this application when last examined.

Claims 20-28 were examined on the merits and stand rejected.

Claims 29-39 have been withdrawn from consideration.

Support for the amendments to claim 20 and withdrawn claims 29, 36, and 38 can be found in the disclosure, for example, at page 1, lines 6-9, page 6, lines 1-9, and in original claims 20, 21, 29, 36 and 38 as filed. Other minor editorial revisions have been made to the claims to better conform to U.S. claim form. Such revisions are non-substantive and not intended to narrow the scope of protection. Such revisions include: revising the beginning of the claims to recite "A" or "The" to provide proper antecedent basis throughout the claims; revising the claims to use proper punctuation and grammar.

No new matter has been added by the above amendment.

Applicants note that the above claim amendments are intended to address matters of form only as they are not intended to affect the scope of the claims. Accordingly, if the next Office Action on the merits includes a rejection of one or more claims, the Action must be non-final.

Applicants thank the Examiner for the careful examination of this case, and respectfully request reexamination and reconsideration of the case, as amended. Below Applicants address the rejections levied in the Office Action, and explain why the rejections are not applicable to the pending claims as amended.

## II. WRITTEN DESCRIPTION AND ENABLEMENT REJECTIONS

On page 2 of the Office Action, claims 20-28 were rejected under 35 U.S.C. § 112, first paragraph, for not complying with the written description requirement.

On page 3 of the Office Action, claims 20-28 were rejected under 35 U.S.C. § 112, first paragraph, on the basis that the specification is not enabled for the full scope of the claims.

These rejections are respectfully traversed as applied to the amended claims. The rejections will be addressed together below.

The rejections are based on the position that the term "quality of plant" as used in claim 20 is not clearly defined, and thus is overly broad and not supported by the disclosure. See the last paragraph on page 2 of the Office Action. At the top of page 3 of the Action, it was indicated that the specification is only enabled for determining the photosynthetic activity of plant material.

Applicants respectfully traverse this position. The specification discloses that the functioning of the photosynthetic system of a plant is very important to the proper functioning of a plant and the quality of the plant. See, for instance, page 4, lines 17-18 of the specification. At page 8, lines 13-16, the specification also discloses that damage to plant material due to disease is detectable at a very early stage as a local increase of fluorescence which can be detected in the IQP-image as a local decrease of the quantum efficiency of the photosynthetic activity. At page 8, lines 24-28 of the disclosure, it is further indicated that damage to fruit and vegetables, e.g., due to diseases, can be detected in the IQP-image. Accordingly, the presence of damage due to disease, is a quality which is clearly disclosed and supported in the specification. Moreover, such quality of the plant can be

determined by measuring the IQP-image as disclosed and exemplified in the specification. Stress-sensitivity of seedlings to infectious pressure or to abiotic stress factors is another quality disclosed in the application. See, for instance, page 8, lines 8-11.

Further it is noted that the language "determination of the quality of plant material" corresponds to determinations which rely on the measurement of the characteristic chlorophyll fluorescence image, which is a measure for the quantum efficiency of the photosynthetic system. In this regard, it is noted that the Office has acknowledged that the specification enables a method for determining the photosynthetic activity of plant material.

For these reasons, it is respectfully submitted that the specification fully supports and enables a method of determining the quality of plant material.

Nonetheless, for the sole purpose of expediting prosecution and not to acquiesce to the rejections, the claims are amended to recite "a method for determining the quantum efficiency of the photosynthetic system of a plant" instead of "determining the quality of plant material." See the discussion immediately above regarding the written description support for such in the disclosure. It is respectfully submitted that the amendment does not substantially narrow the scope of protection. Thus, the specification fully supports and enables the revised

claims. Accordingly, Applicants respectfully submit that the present amendment overcomes these rejections.

In view of the above, withdrawal of the above-noted written description and enablement rejections is solicited.

### III. INDEFINITENESS REJECTION

Claims 20-28 were rejected under 35 U.S.C. § 112, second paragraph, as indefinite for the reasons on page 4 of the Office Action. It was indicated that the terms "small part" and "larger part" are relative terms that make the claims indefinite.

The present amendment overcomes this rejection. In particular, the claims have been amended to replace the terms "small part" and "larger part" with "part" and "further parts", respectively. Support for the revised language can be found in the disclosure, for example, at page 6, lines 1-9, wherein it is disclosed that only a part (albeit a small part) is initially irradiated, and then, by moving the mirror another part (albeit a large part) is then irradiated. In other words, the specification discloses that the beam of electromagnetic radiation does not initially irradiate the whole surface of the plant material (e.g., a leaf), but only a "part" thereof. By moving the beam, "further parts" of the plant material are then irradiated. It is respectfully submitted that such disclosure fully defines (either explicitly or implicitly) and supports the revised language. As such, one skilled in the art, upon reading

the disclosure and in view of the knowledge in the art, would clearly understand the metes and bounds of the revised claim language. Thus, the rejection is no longer tenable and should be withdrawn.

#### IV. REQUEST FOR REJOINDER

Claims 29-39 have been withdrawn from consideration.

Rejoinder and examination of withdrawn claims 29-39 is respectfully requested for the reasons noted at page 18 of the response filed November 1, 2007 and reiterated herein.

Again, the present application is based on WO 2004/040274, which contained both method claims and device claims. The International Search Report mailed February 26, 2006 included a reference, WO 01/000333 (discussed in a prior response), which was considered in relation to both the method and device claims. As a result, unity of invention was found.

Therefore, the claims of the present invention relate to a single inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the claims pertain to the same or corresponding special technical features.

#### V. CONCLUSION

In view of the foregoing amendments and remarks, it is respectfully submitted that the present application is in


condition for allowance. An early notice to that effect is hereby requested.

If the Examiner has any comments or proposals for expediting prosecution, please contact the undersigned attorney at the telephone number below.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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